

Abundance and run timing of adult salmon in Tanada Creek in the Wrangell-St. Elias National Park and Preserve

Abstract: Tanada Creek supports the northern most sockeye salmon run of significant size in the Copper River. Tanada Creek sockeye contribute to fisheries throughout the Copper River drainage, including the Batzulnetas subsistence fishery located at the Tanada Creek confluence with the Copper River. The magnitude of spawning escapement has been sporadically assessed with variable success. This project to assess spawning escapement of sockeye salmon into Tanada Creek was initiated in 2001, and has continued through 2004. A floating resistance board weir and video escapement tower were again tested for feasibility. Because of uncertainty with the 2001 weir counts (flooding precluded counting for 10 days), sockeye were again marked at the weir for a backup mark-recapture experiment to verify weir results. A total of 960 salmon were marked at the weir and sampled for biological data. The weir was operational May 29 – September 19. Water levels and flow were low throughout much of the summer and no leakage was observed at the weir. A total of 17,120 sockeye were counted through the weir, a substantial increase over the numbers counted in 2001-2003. Age 1.3 was the predominant age and constituted 70% of the sockeye throughout the summer. Migratory run timing appeared to be later than the mean (1998, 1999, 2001, 2002, 2003) but slightly earlier than in 2003. Improvements were made on the video system and fish passage counted on the video was 89% of that estimated at the weir. Limnological data was collected in Tanada Lake four times throughout the summer and added to the baseline information gathered in 2003. As in 2003, zooplankton density and biomass appeared to show high productivity in Tanada Lake.

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